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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.      | CONFIRMATION NO. |
|--|-------------|----------------------|--------------------------|------------------|
| 09/878,427   | 06/12/2001  | Takaaki Konishi      | 2001_0741A               | 2296             |
| 513 7590 04/04/2007<br>WENDEROTH, LIND & PONACK, L.L.P.<br>2033 K STREET N. W.<br>SUITE 800<br>WASHINGTON, DC 20006-1021 |             |                      | EXAMINER<br>ZHENG, EVA Y |                  |
|  |             |                      | ART UNIT                 | PAPER NUMBER     |
|  |             |                      | 2611                     |                  |
| SHORTENED STATUTORY PERIOD OF RESPONSE   |             | MAIL DATE            | DELIVERY MODE            |                  |
| 3 MONTHS   |             | 04/04/2007           | PAPER                    |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

09/878,427

Applicant(s)

KONISHI ET AL.

Examiner

Eva Yi Zheng

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3-6, 10-15 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 8 and 9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### *Request for Continued Examination*

1. The request filed on January 19, 2007, for a Request for Continued Examination (RCE) under 37 CFR 1.114 based on parent Application No. 09/878,427 is acceptable and a RCE has been established. An action on the RCE follows.

### *Response to Arguments*

2. Applicant's arguments filed on January 19, 2007 have been fully considered but they are not persuasive. Examiner has thoroughly reviewed Applicant's arguments but firmly believes that the cited reference reasonably and properly meet the claimed limitation as rejected.

Applicant's argument – Prior art by Maalej (US 6,545,532) failed to teach or suggest that the second automatic gain control amplification means including the level detection means as now recited in claim 1.

Examiner's response – Maalej disclose a second automatic gain control amplification (AGC) means (Fig. 2), wherein the output of a digital multiplier (210) is directly connect to a power level detector (40, 45, 50 and 230 as a whole constitute as a power level detector) to generate a signal level, and the signal level detected is send to a digital loop filter (220) for outputting to the digital multiplier. Therefore, the power level detector is directly receiving the output signal from the digital multiplier of the AGC.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 2, 8 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Maalej et al. (US 6,545,532).

a) Regarding to claims 1 and 8, (As shown in figures, 1, 2 and 5,) Maalej et al. discloses a digital broadcast receiving apparatus for amplifying a digital modulated signal wave propagated through air with gain automatically adjusted to have a predetermined amplitude, and demodulating the digital modulated signal wave to a digital signal, the digital broadcast receiving apparatus comprising:

(1) regarding to claims 1 and 8:

tuner means (96) for frequency-converting said received digital modulated signal wave into a first modulated signal (IF);

first automatic gain control amplification means (AGC1 10) for controlling gain of said tuner means to make a level of said first modulated signal at a first predetermined level (column 6, lines 9-16);

A/D conversion means (25) for converting, analog to digital, said first modulated signal into a second modulated signal (14);

demodulation means (30 and 35) for demodulating said second modulated signal into a first demodulated digital signal (I and Q); and

second automatic gain control amplification means (AGC2 20 and 50) for amplifying a level of said first demodulated digital signal to be at a second predetermined level, and generating a second demodulated digital signal (column 5, lines 36-54 and column 6, lines 46-65 and column 7, lines 18-37); wherein

the second automatic gain control amplification means includes (20 in Fig. 2):

multiplication means for receiving the first demodulated digital signal and an automatic gain control signals, multiplying the first demodulated digital signal by the automatic gain control signal and outputting the multiplied signal as the second demodulated digital signal (210);

level detection means for receiving the second demodulated digital signal directly from the multiplication means, detecting a level of the second demodulated digital signal and generating a level signal representing the level of the second demodulated digital signals (40, 45, 50 and 230 as a whole constitute as a power level detector; Therefore, the power level detector is directly receiving the output signal from the digital multiplier of the AGC.); and

automatic gain control signal generation means for receiving the level signal representing the level of the second demodulated digital signal, generating the automatic gain control signal based on the received level signal, and outputting, the automatic gain control signal to the multiplication means (220).

(2) regarding to claims 2 and 9, Maalej et al. discloses

wherein said first automatic gain control amplification means controls amplification of the digital modulated signal wave without flowing frequency fluctuations thereof for generation of the first modulated signal (column 6, lines 9-16) (column 5, lines 36-54, column 6, lines 46-65 and column 7, lines 18-37).

***Allowable Subject Matter***

5. Claims 3-6 and 10-15 are allowed.

6. The following is an examiner's statement of reasons for allowance:

None of the prior art teaches or suggests a digital broadcast receiver comprises a first and second AGC means, wherein the first AGC controls amplification of the digital modulated signal wave by following frequency fluctuations thereof that are smaller than a first predetermined frequency, and the second AGC control amplification of the digital modulated signal wave by following frequency fluctuations thereof under a second predetermined frequency that is larger than the first predetermined frequency.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eva Y Zheng whose telephone number is 571-272-3049. The examiner can normally be reached on M-F, 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on 571-272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Eva Yi Zheng  
Examiner  
Art Unit 2611

March 28, 2007

  
CHIEH M. FAN  
SUPERVISORY PATENT EXAMINER